



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
GROUP ART UNIT: 2663 EXAMINER: Jasper C. Kwoh

INVENTOR: Dan Kikinis  
CASE: P3295  
SERIAL NO.: 09/024,923  
FILED: February 17, 1998  
SUBJECT: Telephone Network Interface Bridge between Data  
Telephony Networks and Dedicated Connection  
Telephony Networks

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**PARTY IN INTEREST:** All inventions in the disclosure in the present case are assigned to or assignable to:

Genesys Telecommunications Laboratories, Inc.

To the Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

SIR:

**APPEAL BRIEF**

**37 C.F.R 1.192(c)(1) Real Party in Interest**

The real party in interest is the party named above in the caption of the brief,  
Genesys Telecommunication Laboratories, Inc.

## **37 C.F.R 1.192(c)(2) Related Appeals and Interferences**

This is an appeal from the action of the Primary Examiner dated June 25, 2003, finally rejecting claims 1, 4-7, 10-13, 15 and 18, the only pending claims in the application. There are no related appeals or interferences in the instant case.

## **37 C.F.R 1.192(c)(3) Status of the Claims**

The present application was filed on February 17, 1998 with claims 1-17. Claim 1 is an independent claim for a computerized telephony bridge unit and is Previously Amended. Claims 2-3 are cancelled. Claim 4 is depended from claim 1 and is Previously Amended. Claim 5 is depended upon claim 1 and is Previously Amended. Claim 6 is depended from claim 5 and is Previously Amended. Claim 7 is an independent method claim for converting telephony calls. Claims 8-9 are cancelled. Claim 10 is depended from claim 9 and is Original. Claim 11 is depended from claim 7 and is Previously Amended. Claim 12 is depended from claim 11 and is Original. Claim 13 is an independent claim for a computerized telephony bridge unit and is Previously Amended. Claim 14 is cancelled. Claim 15 is depended from claim 13 and is Previously Amended. Claims 16-17 are cancelled. Claim 18 is an independent claim for a computerized telephony bridge unit and is Added and Previously Amended.

## **37 C.F.R 1.192(c)(4) Status of Amendments**

Following is a chronological listing of Office actions and Amendments filed in the instant case:

1. Original application filed with claims 1-17 on February 17, 1998.

2. Office Action mailed on November 26, 1999. In the Office Letter the Examiner rejected claims 1-2, 7-8, and 13-17 under 35 U.S.C. 102(e) as being anticipated by Gordon. Claims 3-6 and 9-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon in view of Iwami et al.
3. Amendment A filed February 1, 2000. Applicant provided arguments to more particularly point out the subject matter regarded as inventive, distinguishing unarguably over the reference of Gordon and Iwami as cited and applied by the Examiner.
4. Office Action mailed July 6, 2000. In the Office Letter the Examiner suggested that Fig. 3 should be designated by a legend "Prior Art". The Examiner objected to the drawings under 37 CFR 1.83(a). Claims 1-6 and 13-17 were objected to by the Examiner because of informalities. Claims 16 and 17 were rejected under 35 U.S.C. 112, first paragraph. Claims 5-6 were rejected under 35 U.S.C. 112 second paragraph. Claims 1-4, 7-10 and 13-15 were rejected under 35 U.S.C. 102(e) as being anticipated by Williams et al. Hereinafter Williams. Claims 5-6 and 11-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Iwami et al.
5. Amendment A filed October 6, 2000. Applicant provided amendments to the appropriate claims to overcome the Examiner's claim objections and 112 rejections. Applicant provided arguments to overcome the 112 rejection against claims 16-17. Red-lined drawings were provided by applicant to overcome the drawing objections. Applicant provided arguments to more particularly point out the subject matter regarded by the inventor as patentable, and to distinguish unarguably over the reference of Williams and Iwami as applied by the Examiner.
6. Final Office Action mailed on December 21, 2000. In the Office Letter the Examiner objected to the drawings under 37 CFR 1.83(a). Claims 1-17 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being

unpatentable over claims 1-23 of copending Application No. 09/036,358. Claims 1-17 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 09/041,370. Claims 1-4, 7-10 and 13-15 were rejected under 35 U.S.C. 102(e) as being anticipated by Williams et al., hereinafter Williams. Claims 3-4 and 9-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Ito et al., hereinafter Ito. Claims 5-6 and 11-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Iwami et al., hereinafter Iwami.

7. Amendment C filed March 21, 2001. Applicant amended the specification to overcome the objection to the drawings. Applicant provided two separate terminal disclaimers in order to overcome the obviousness-type double patenting rejections. Applicant amended the independent claims to more particularly point out that the conversion circuitry in the single bridge unit enables a live call between two people wherein one person is on a COST network, and the other is on the DNT network. Applicant provided arguments which unarguably distinguished over the art.

8. Office Action mailed June 5, 2001. Claims 1-17 were presented for examination. Claims 1-17 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,201,804 in view of Iwami. Claims 1-2, 5-8 and 11-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Iwami. Claims 3-4 and 9-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Iwami, and further in view of Ito et al., hereinafter Ito. Claims 16 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams.

9. Amendment D filed September 7, 2001. Applicant amended the claims to specifically recite that the data network is the Internet, and calls placed on the Internet are IPNT calls. Applicant provided a terminal disclaimer in order to overcome the obviousness-type

double patenting rejection. Claims 2, 8 and 14 were cancelled by applicant. Applicant provided extensive arguments to overcome the cited art.

10. Final Office Action mailed November 27, 2001. Claims 1, 3-7, 9-13, and 15-17 were presented for examination. Claims 1, 5-7, 11-13 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over William, in view of Iwami. Claims 3-4 and 9-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Iwami, and further in view of Ito. Claims 16 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Iwami.

11. Applicant filed a Preliminary Amendment January 28, 2002. Applicant provided further convincing arguments which clearly showed that the references presented by the Examiner failed to support the obviousness rejection asserted by the Examiner.

12. Office Action mailed in the above-referenced case on February 27, 2002. Claims 1, 3-7, 9-13 and 15-17 were presented for examination. In the Office Action Examiner objected to claim 15 as it depends from canceled claim 14. Claims 5-6, 11-12, and 15-17 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 1, 7, 13 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al., hereinafter Williams.

13. Applicant filed Amendment A on April 19, 2002. Applicant responded to the Office Action mailed February 27, 2002. Applicant herein amended the claims appropriately to correct the informalities, and presented further argument to more particularly point out the subject matter regarded as the invention, and to establish that the claims distinguish unarguably over the prior art cited and applied by the Examiner. Applicant pointed out and argued the key limitations in the base claims that the Examiner appeared to have misunderstood in his rejections and statements.

14. Notice of Non-Compliant Amendment mailed in the above-referenced case on April 25, 2002. The Notice states that the following items are required for compliance: "Marked up copies of claims 1 and 3."
15. Applicant filed Amendment A on May 22, 2002. Applicant responded to both the Notice of Non-Compliant Amendment mailed April 25, 2002, and the Office Action mailed February 27, 2002. Applicant argued that claims 1 and 3 were not amended in the rejected response, and stand in exactly their wording prior to that response. There is therefore no requirement for a marked-up copy of claims 1 and 3. Applicant herein amended the claims appropriately to correct the informalities, and presented further argument to more particularly point out the subject matter regarded as the invention, and to establish that the claims distinguish unarguably over the prior art cited and applied by the Examiner. Applicant pointed out and argued the key limitations in the base claims that the Examiner appeared to have misunderstood in his rejections and statements.
16. New Office Action mailed in the above-referenced case on August 26, 2002. Claims 1, 3-7, 9-13 and 15-17 are presented for examination. The drawings were objected to under 37 CFR 1.83(a). Further, claims 16-17 are rejected under 35 U.S.C. 112, second paragraph as being indefinite. Claims 1, 3-7, 9-13 and 15-17 are rejected under 35 U.S.C. as being then patentable over Iwami et al. in view of Guck.
17. Amendment G filed September 26, 2002. Applicant presented arguments to overcome the drawing objection. Applicant added newly written claim 18 and cancelled claims 16-17. Applicant also presented strong arguments which distinguished unarguably over the art provided by the Examiner.
18. Final Office Action mailed in the above-referenced case on November 22, 2002. Claims 1, 3-7, 9-13, 15 and 18 are standing for examination. The Examiner has rejected claims 1, 3-7, 9-13, 15 and 18 as being unpatentable over Iwami (U.S. 5,604,737),

hereinafter Iwami, in view of Guck (5,911,776), hereinafter Guck.

19. Amendment H filed February 19, 2003. Applicant amended claims 4, 7, 13 and 18 to more particularly point out and distinctly claim the subject matter regarded as patentable. Claims 2 and 8 were cancelled. Applicant argued the key limitations in applicant's claims as amended which clearly and unarguably distinguished over the prior art cited and applied by the Examiner.

20. Office Action mailed March 21, 2003. Claims 1, 4-7, 10-13, 15 and 18 are pending for examination. The Examiner rejected claims 1, 4-7, 10-13, 15 and 18 under 35 U.S.C. 103(a) as being unpatentable over Iwami et al. (U.S. 5,604,737), hereinafter Iwami, in view of Chang et al. (U.S. 6,198,738), hereinafter Chang.

21. Amendment I was filed on April 21, 2003. Applicant provided arguments to more particularly point out and distinctly claim the subject matter of applicant's invention regarded as patentable, and to distinguish clearly and unarguably over prior art presented by the Examiner. Applicant points out and argues the key limitations of applicant's claims which appeared to be misunderstood by the Examiner. No changes were made to the claims.

22. Final Office Action mailed June 25, 2003. Claims 1, 4-7, 10-13 and 15-18 were rejected under 35 U.S.C. as being unpatentable over Iwami in view of Chang. No amendment was filed after the final rejection that was issued on June 25, 2003.

## **37 C.F.R 1.192(c)(5) Summary of the Invention**

A system and method are provided including a computerized telephony bridge unit (87, fig. 4, page 16, lines 16-21), comprising a trunk-line port and associated circuitry for receiving and placing Connection Oriented/Switched Telephony (COST)

telephone calls on a COST network (23, Fig. 5, page 16 lines 22-24); a data network port and associated circuitry for receiving and placing Data Network Telephony (DNT) calls on a data network (25 Fig. 4, page 21, lines 6-10); conversion circuitry for converting data dynamically between DNT and COST telephone calls (page 16, lines 3-14); and control routines adapted for managing operations of the telephony bridge unit (page 16, lines 3-14). The control routines are adapted to receive a first call (90, 91 Fig. 5) from one of the COST and DNT networks (13, 15 Fig. 4), to place a call associated with the received call on the network other than the network on which the call is received, and to dynamically convert data between the associated calls.

In some embodiments there is a digitally-stored look-up table relating COST telephone numbers to IP addresses, and the control routines are adapted to retrieve specific data from an incoming call, either COST or DNT, and to use the retrieved data to access the look-up table to determine an associated COST telephone number or IP address, and to use the associated COST telephone number or IP address to place a call associated with the incoming call (page 18, lines 16-27). The specific data from the incoming call may be coded in a portion of an IP address associated with the incoming call. Also, the code routines may be adapted to receive a DNT call from a caller, and to negotiate with the caller to ascertain a COST telephone number to use to place a COST call associated with the incoming DNT call. There may also be an Interactive Voice Response (IVR) unit (SCP 92, Fig. 5 page 20 lines 24-28), and the IVR unit may negotiate with the caller to ascertain a COST telephone number for a call to be associated with the incoming DNT call.

The computerized bridge as disclosed for the first time in the art, provides a seamless and general interface between otherwise incompatible telephony networks, such as a connection-oriented telephony network, like publicly-switched telephony networks, and a data telephony networks, such as the Internet. Such a bridge may be employed, for example, by a local telephone company as a service supporting IPNT-only call centers, providing customers with a way to implement fully-functional call centers without having to resort to any expensive telephony dedicated switching equipment. Bridges according

to the invention may also be employed between any two or more telephony networks with incompatible data protocol.

### **37 C.F.R 1.192(c)(6) Issues**

1) Whether the primary reference of Iwami teaches control routines, as claimed, for extracting encoded information from a COST call, using the extracted information to access an IP address in a lookup table and using the IP address to make a live connection between the COST call and the IP address. 2) Whether the primary reference of Iwami teaches control routines, as claimed, for extracting encoded information from an IP call, using the extracted information to access a COST telephone number in a lookup table and using the COST number to make a live connection between the IP call and the destination telephone number. 3) If the obviousness rejection fails because all of the limitations in applicant's claims are not shown or suggested in the art of Iwami and Chang.

### **37 C.F.R 1.192(c)(7) Grouping of Claims**

The claims stand or fall together, and no grouping of separately patentable claims is presented.

### **37 C.F.R 1.192(c)(8) Argument**

1) Applicant's claim specifically recites "control routines functioning as part of the bridge unit receive a first incoming call from one of the COST and Internet networks, extract specific data encoded into the incoming call, either COST or IPNT, and use the extracted data to access the look-up table to determine an associated COST telephone number or IP address". Applicant's claim 4 specifically recites that the specific data extracted from the incoming call is coded in a portion of an IP address associated with the incoming call.

The Examiner stated that Iwami teaches control routines functioning to extract specific data to access the look-up table. Applicant argues, however, that using the COST or IP address of the incoming call in order to compare it with associated IP addresses or COST telephone numbers clearly cannot read on extracting specific data encoded into the incoming call either COST or IPNT, and using the extracted data to access the look-up table to determine an associated COST number or IP address as claimed.

Fig. 18, of Iwami, simply illustrates the structure of an extension number management table, which stores COST extension numbers and associated communication terminal (IP) addresses. Iwami teaches, with reference to Fig. 17, processing for determining a communication terminal with which a telephone user wishes to communicate, wherein an extension number is entered by a caller (source of incoming call to be converted) through push buttons of a telephone. The resulting corresponding tone is converted to a numeral and stored, and upon determination of the termination of entering the extension number, the communication terminal address (IP address) of a communication terminal having the inputted extension number is found from an extension number management table (Fig. 18), to determine the address of a communication terminal with which the telephone user desires to communicate. In this example, it is clearly shown that Iwami teaches simply a process wherein, for an incoming COST call, the extension number entered by the caller is used for the incoming call to compare with associated IP addresses in the management table. Iwami simply uses a caller entered extension number associated with an incoming COST call to compare with IP addresses stored in a management table for determining the communication terminal with which the caller wishes to communicate.

2) Iwami nowhere deals with processing an incoming Internet call, and extracting specific information encoded into the Internet call for accessing a look-up table and determining the associated cost telephone number. Iwami does not teach or suggest this capability at all, and deals only with incoming COST calls. The Examiner stated that the Iwami reference shows that specific data of an incoming call is coded in a portion of an

IP address associated with the incoming call. Applicant respectfully disagrees with the Examiner. Iwami nowhere teaches or deals with any encoding of any data into an IP address associated with an incoming Internet call. There is simply no manipulation or encoding of any data in the Internet addresses, as taught in applicant's invention, and positively recited in applicant's claim language.

Applicant's invention teaches and claims that control routines receive a first incoming call and extract specific data encoded into the incoming call, regardless of whether the incoming call is a COST call or Internet call. Applicant's claim 1 specifically recites that control routines receive a first incoming call from one of the COST and Internet networks, extract specific data encoded into the incoming call, either COST or IPNT, and use the extracted data to access the look-up table to determine an associated COST telephone number or IP address". In the case of an incoming Internet call, a COST telephone number may be encoded by an agent in the call center into an IP address of the computerized bridge, and the bridge has control routines which extract that COST number from the IP address or other header in an incoming IP call from the call center. The coded portion of the IP address may also have just a key instead of the entire cost number, and the key may allow look-up in a stored table at the bridge to ascertain the cost number to which the call may be connected and translated. Applicant believes that encoding and extracting such specific information from an incoming call, whether the call be a COST call or an IPNT call, for the purpose of using the extracted information to access a look-up table to determine a destination number or IP address for placing a second call related to the first incoming call, is a key and patentable distinction over the prior art.

The Examiner stated that Iwami discloses that specific data is coded in an IP address (i.e. Fig. 18, the IP address correlates to the telephone number). As argued above, applicant reasserts that Iwami does not teach or suggest encoding data into an IP address associated with an incoming Internet call. Applicant believes the Examiner is reading more into the prior art than what is actually taught.

3) Applicant believes that the combined art clearly and unarguably fails to specifically teach, suggest or show clear motivation for all of the limitations of applicant's independent claims 1, 7, 13 and 18. Regarding issue 1) As a broad statement for the record, it appears the examination in this case is following the old path of investing prior art status in inventions that accomplish the same or a similar purpose as the invention in examination, rather than following the principle that it is the actual limitations of the claim that must be found in the art.

The problem with this approach in examination is that the rejections are not *prima facie*, in that they do not teach the actual physical limitations of the claimed apparatus. They only teach accomplishing a similar purpose.

Regarding issue 2) Applicant asserts that in this particular instance the motivation for extracting encoded information from IP addresses to access a lookup table for a COST telephone number, then making the connection is being derived from applicant's disclosure, not from the prior art as required for a proper *prima facie* rejection.

Applicant believes claims 1, 7, 13 and 18 are patentable over the rejections presented by the Examiner. Claims 4-6, 10-12 and 15 are then patentable on their own merits, or at least as depended from a patentable claim.

**37 C.F.R 1.192(c)(9) Appendix A**

The following are the claims involved in the Appeal:

1. (Previously Amended) A computerized telephony bridge unit, comprising:
  - a trunk-line port and associated circuitry for receiving and placing Connection Oriented/Switched Telephony (COST) telephone calls on a COST network;
  - a data network port and associated circuitry for receiving and placing Internet Protocol Telephony Network (IPNT) calls on the Internet;
  - conversion circuitry for converting data representing calls dynamically between IPNT and COST telephone calls and
  - a digitally-stored look-up table relating COST telephone numbers to IP addresses; characterized in that control routines functioning as part of the bridge unit receive a first incoming call from one of the COST and Internet networks, extract specific data encoded into the incoming call, either COST or IPNT, and use the extracted data to access the look-up table to determine an associated COST telephone number or IP address, and use the associated COST telephone number or IP address to place a call associated with the received call on the network other than the network on which the call is received, and dynamically convert data between the associated calls, and the dynamic conversion of data enables two people to engage in a live conversation even though one person is on the Internet and the other is on a COST network.
2. (Cancelled)
3. (Cancelled)
4. (Previously Amended) The bridge unit of claim 1 wherein the specific data from the incoming call is coded in a portion of an IP address associated with the incoming call.

5. (Previously Amended) The bridge unit of claim 1 wherein the control routines receive an incoming IPNT call from a caller, and negotiate with the caller to ascertain a COST telephone number to use to place a COST call associated with the incoming IPNT call from the caller.

6. (Previously Amended) The bridge unit of claim 5 wherein the bridge unit further comprises an Interactive Voice Response (IVR) unit, and wherein the IVR unit negotiates with the caller to ascertain a COST telephone number for a call to be associated with the incoming IPNT call.

7. (Previously Amended) A method for converting telephony calls between Connection Oriented/Switched Telephony (COST) calls and Internet Protocol Telephony Network (IPNT) calls, comprising steps of:

(a) connecting a COST trunk line to a trunk-line port and associated circuitry for receiving and placing Dedicated Connection Telephony (COST) telephone calls on a COST network, the trunk line port and associated circuitry in a computerized telephony bridge unit;

(b) connecting an Internet line to a data network port and associated circuitry for receiving and placing IPNT calls on the Internet, the data network port and associated circuitry also in the computerized telephony bridge unit;

(c) receiving a first call from one of the COST network and the Internet;

(d) extracting specific data from the incoming call on one network, either COST or IPNT;

using the extracted data to access a digitally-stored lookup table and to retrieve from the table a COST telephone number or an IP address on the network other than the network upon which the incoming call was received;

(e) placing a second call associated with the first call on the network other than the network on which the first call is received using the retrieved telephone number or IP address; and

(f) dynamically converting data between the two associated calls, thereby providing a continuing and dynamic telephony connection, enabling live conversation between a user on a COST telephone connected to the COST network and a user on an IPNT terminal connected to the Internet.

8. (Cancelled)

9. (Cancelled)

10. (Original) The method of claim 9 wherein, in the step for retrieving specific data the data is retrieved from a portion of an IP address of the incoming call.

11. (Previously Amended) The method of claim 7 further comprising a step for receiving an incoming IPNT call from a caller, and negotiating with the caller to ascertain a COST telephone number for placing a call to be associated with the incoming IPNT call from the caller.

12. (Original) The method of claim 11 wherein negotiation with the caller is conducted by an Interactive Voice Response unit in the computerized telephony bridge unit.

13. (Previously Amended) A computerized telephony bridge unit, comprising:

    a first port and associated circuitry for receiving and placing calls on a connection-oriented/switched telephony (COST) network, including circuitry for generating data according to a protocol compatible with the COST network;

    a second port and associated circuitry for receiving and placing calls on an Internet network in which internet Protocol Network Telephony (IPNT) calls may be processed, including circuitry for generating data according to a protocol compatible with the Internet;

    conversion circuitry for converting data dynamically between the COST network

protocol and the Internet protocol and

a digitally-stored look-up table relating COST telephone numbers to IP addresses; characterized in that control routines functioning as part of the bridge unit receive a first incoming call from either the COST network or the Internet, extract specific data encoded into the incoming call, either COST or IPNT, and use the extracted data to access the look-up table to determine an associated COST telephone number or IP address, and use the associated COST telephone number or IP address to place a call associated with the received call on the network other than the network on which the call is received, and dynamically convert data between the associated calls, and the dynamic conversion of data enables two people to engage in a live conversation even though one person is on the Internet and the other is on a COST network.

14. (Cancelled)

15. (Previously Amended) The bridge unit of claim 13 wherein the network associated with the first port is a publicly switched telephony network (PSTN) and the network associated with the second port is the Internet.

16. (Cancelled)

17. (Cancelled)

18. (Previously Amended) A computerized telephony bridge unit, comprising:

a first port and associated circuitry for receiving and placing calls on an Internet network protocol or non-Internet network protocol, including circuitry for generating data according to protocols compatible with an Internet network or non-Internet network;

a second port and associated circuitry for receiving and placing calls on an Internet network protocol or non-Internet network protocol, including circuitry for generating data according to protocols compatible with an Internet network or non-

Internet network;

a digitally-stored look-up table relating COST telephone numbers to IP addresses;  
and

conversion circuitry for converting data dynamically between ones of like  
networks protocols of the first and second ports;

characterized in that control routines functioning as part of the bridge unit receive  
a first incoming call from either the Internet or non-Internet protocol network, extract  
specific data encoded into the incoming call, either COST or IPNT, and use the extracted  
data to access the look-up table to determine an associated COST telephone number or IP  
address, and use the associated COST telephone number or IP address to place a call  
associated with the received call on the same network protocol on which the call is  
received, and dynamically convert data between the associated calls, and the dynamic  
conversion of data enables two people to engage in a live conversation even though each  
person is on the same call network protocol having dissimilar data protocols.

Respectfully submitted,  
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by



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